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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,863	06/26/2003	Bong-Hwoan Choi	1293.1758	1435
21171	7590	12/06/2007	EXAMINER	
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SUITE 700				
1201 NEW YORK AVENUE, N.W.			ART UNIT	
WASHINGTON, DC 20005			2627	
			MAIL DATE	
			12/06/2007	
			DELIVERY MODE	
			PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/603,863	Applicant(s) CHOI, BONG-HWOAN	
	Examiner Christopher R. Lamb	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 5-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 5-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 2nd, 2007 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1 and 5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 1:

The subject matter that was not described in the specification is "if the detected amount of data recorded on the optical disc is **above** a reference value, moving a pickup to a periphery area and measuring a focus error."

The original specification was the opposite of this: in the original specification, if the detected amount of data recorded on the optical disc is **below** a reference value, the apparatus moves the pickup to a periphery area and measures the focus error. In the original specification, see Fig. 3, steps 308 and 309, or pages 6-7.

Since the claimed subject matter is the opposite of the originally described subject matter, one skilled in the art could not possible conclude that the inventor, at the time the application was filed, had possession of the claimed invention.

Regarding claim 5:

This claim is dependent on claim 1.

4. Claims 1 and 5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding claim 1:

The subject matter that was not described in the specification is:

"if the detected amount of data recorded on the optical disc is **above** a reference value, moving a pickup to a periphery area and measuring a focus error; and

if the measured focus error is below a constant value, detecting the optical disc as a fashion disc type having diameters of 8 cm and limiting the operational speed level of the optical disc drive."

As noted in the 35 USC 112, first paragraph, rejection above, the amount of data test in the specification is opposite that of the claim: in the specification, if the amount of data is below the value, it performs the focus error test (see Fig. 3, or pages 6-7).

The claim doesn't make sense. In the specification, the reference value is the maximum amount of data an 8 cm disc can hold. If the detected amount of data is above the reference value, then the disc must be bigger than 8 cm.

However, in the claim, if the detected amount of data is above the reference value, the focus error test can detect the disc as having a diameter of 8 cm. This result is not possible.

Since the claimed result is impossible, one of ordinary skill could not make and/or use the invention.

Regarding claim 5:

It is dependent on claim 1.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okamoto et al. (US 5,696,744).

Regarding claim 6:

Okamoto discloses:

An apparatus detecting an optical disc, comprising:

a weight detection unit detecting a weight of the optical disc inserted in a disc drive (column 1, lines 50-55: Okamoto does not use the term "weight detection" but the weight of the disc determines the activation time disclosed there, and therefore this method detects the weight of the disc);

a comparison unit comparing an amount of data recorded on the optical disc from the lead-in area of the optical disc with a reference value (column 1, lines 45-50); and

a disc detection unit detecting a size of an optical disc according to the weight detected via the weight detection unit, determining the size of the optical disc by detecting the amount of data recorded on the optical disc from a lead-in area of the optical disc when the disc drive is driven (column 1, lines 55-60).

Okamoto does not disclose (in this embodiment):

"if determined as a result of the comparison via the comparison unit that the amount of data recorded on the optical disc is below the reference value, moving a pickup to a periphery area and measuring a focus error, and if the measured focus error is below a constant value, detecting the optical disc as a fashion disc type having diameters of 8 cm."

Note that Okamoto discloses that the method fails when a short program is recorded on the disc (column 1, lines 65-67).

Okamoto discloses another method:

moving a pickup to a periphery area and measuring a focus error, and if the measured focus error is below a constant value, detecting the optical disc as a fashion disc type having diameters of 8 cm (column 3, lines 55-65; column 5, lines 25-60).

It would have been obvious to one of ordinary skill in the art to include in Okamoto wherein in the disc detection unit if determined as a result of the comparison via the comparison unit that the amount of data recorded on the optical disc is below the reference value, moving a pickup to a periphery area and measuring a focus error, and if the measured focus error is below a constant value, detecting the optical disc as a fashion disc type having diameters of 8 cm.

The rationale is as follows:

The claim is merely the combination of known methods taught by Okamoto: the weight detection and comparison method taught by Okamoto as prior art, and the focus error method in the main disclosure of Okamoto. As the methods were individually known, one of ordinary skill could have combined them together with predictable results. The motivation would have been to introduce redundant checks, improving accuracy.

As to only performing the focus error "if determined as a result of the comparison via the comparison unit that the amount of data recorded on the optical disc is below the reference value," Okamoto disclosed that the amount of data check fails when a short program is recorded on a big disc (column 1, lines 65-67). Therefore it especially makes sense to add this additional focus error check in the circumstances that would lead to that failure: that is, when the amount of data recorded is short, or below a reference value.

Regarding claim 7:

Okamoto discloses wherein the detection unit includes:

a first disc detection unit that detects the size of the disc according to the weight detected via the weight detection unit (necessary to implement the method of column 1, lines 50-55);

a second disc detection unit that determines the size of the optical disc by detecting the amount of data recorded on the optical disc from the lead-in area of the optical disc when the disc drive is driven (necessary to implement the method of column 1, lines 45-50); and

a third disc detection unit that moves the pickup to the periphery area and measures the focus error, if it is determined as the result of the comparison via the comparison unit that the amount of data recorded on the optical disc is above the reference value, and detects the optical disc as the fashion disc type, if the measured focus focus error is below the constant value (column 3, lines 55-65; column 5, lines 25-60).

Regarding claim 8:

Okamoto discloses:

wherein the first disc detection unit detects the optical disc as either a standard disc having a diameter of 12 cm or a disc having a diameter of 8 cm according to the weight of the optical disc (column 1, lines 50-55; column 1, lines 10-20).

Regarding claim 9:

Okamoto discloses:

the second disc detection unit detects the optical disc as any one disc among a standard disc having a diameter of 12 cm on which data is fully recorded, a standard disc having a diameter of 12 cm on which data is partially recorded, and a disc having a diameter of 8 cm according to the amount of data recorded on the optical disc (column 1, lines 45-50: the total recording time is enough to tell whether the disc is fully recorded or partially recorded).

Regarding claim 10:

Okamoto discloses:

the third disc detection unit detects the optical disc as a fashion disc if the measured focus error is below the constant value (column 3, lines 55-65; column 5, lines 25-60) and as a standard disc having a diameter of 12 cm on which data is partially recorded if the measured focus error is above the constant value (column 3, lines 55-65; column 5, lines 25-60; it knows if it is partially recorded since it earlier performed the step of reading the total recording time).

Response to Arguments

7. Applicant's arguments with respect to claims 1 and 5-10 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendment did overcome the previous rejections, but in light of the amendment, new rejections have been applied as noted above.

Note that claims 1 and 5-10 were previously rejected under 35 USC 112, first paragraph, as failing to comply with the written description requirement. Currently, claims 1 and 5 are rejected under 35 USC 112, first paragraph, as failing to comply with

the written description requirement, but this is a different rejection than the one in the previous Office Action. Applicant's amendment overcame that rejection; however, Applicant's amendment also created the grounds for this new rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R. Lamb whose telephone number is (571) 272-5264. The examiner can normally be reached on 9:00 AM to 6:30 PM Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/William Korzuch/
SPE, Art Unit 2627